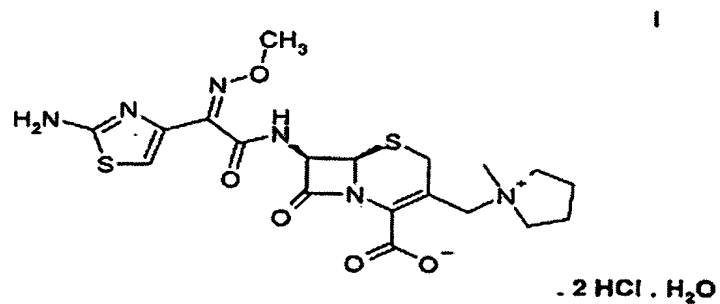


Amendments to the Claims:

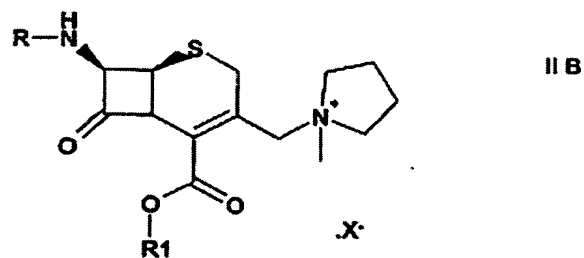
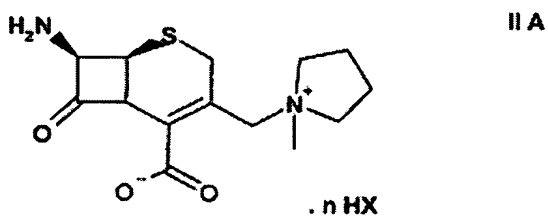
This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Original): A process for producing a compound of formula I



wherein a compound of formula IIA or IIB



wherein

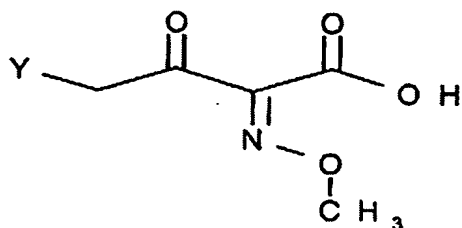
R₁ is a trialkylsilyl group,

R is hydrogen or a trialkylsilyl group,

n is 0 - 2 and

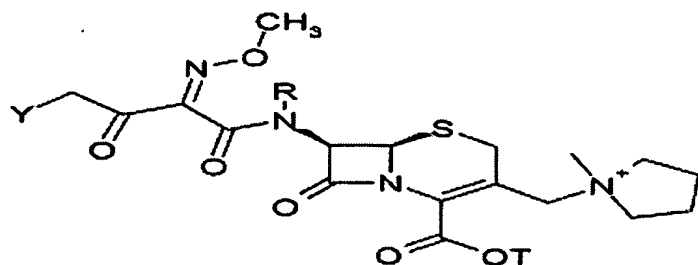
X signifies chloride, bromide or iodide

is reacted with a reactive derivative of formula III



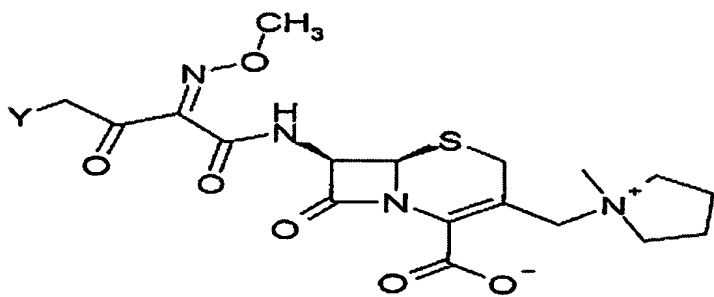
III

wherein Y signifies halogen or a leaving group, to form a compound of formula IV or V



IV

wherein T is trialkylsilyl, the silyl protecting groups, if present, are removed, or the compound of formula IV as the acid addition salt of formula V is isolated wherein m is 0 or 1 and the compound of formula IV



V

. m HX

or the compound of formula V is cyclised with thiourea, and subsequently the compound of formula I is isolated.

Claim 2. (Original): A process as claimed in claim 1, wherein the compounds of formula II are produced from their respective mono- or di- hydrogen halide adducts.

Claim 3. (Currently amended): A process as claimed in claim 1-~~or 2~~, wherein pyrrolidinium-1-[(7-amino-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-yl)methyl]-iodide monohydrate is used.

Claim 4. (Currently amended): A process as claimed in claim 1-~~or 2~~, wherein pyrrolidinium-1-[(7-amino-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-yl)methyl]-chloride or

pyrrolidinium-1-[(7-amino-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-yl)methyl]-dihydrochloride is used, optionally in solvated form.

Claim 5. (Original): A compound of formula V, wherein Y and X are Cl.

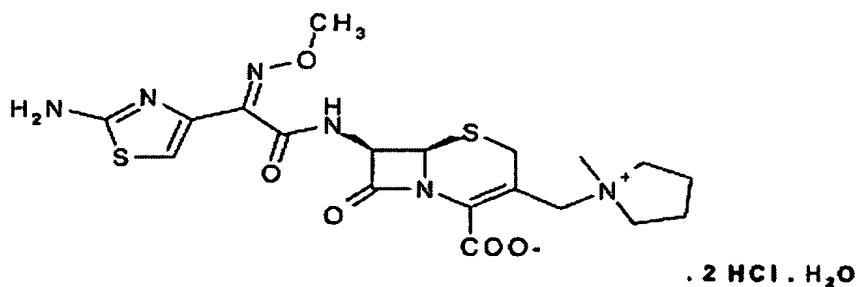
Claim 6. (Original): A compound as claimed in claim 5 in crystalline form wherein the compound of formula V is in free base or acid addition salt form.

Claim 7. (Original): A compound as claimed in claim 6 having an X-ray powder diffraction pattern substantially as that shown in Figure 1 or Figure 2.

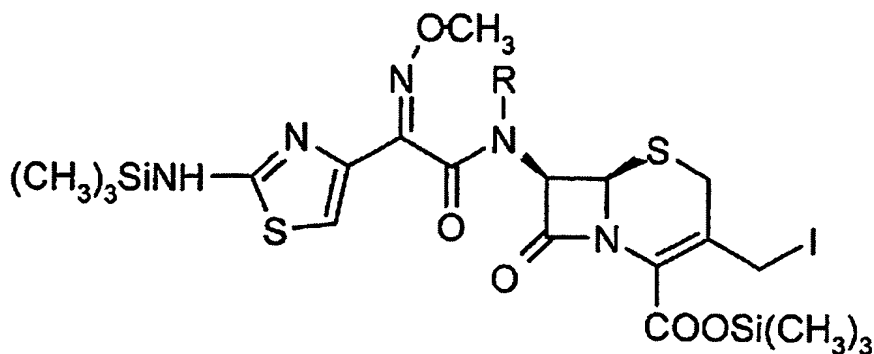
Claim 8. (Currently amended): A process according to claim 1, ~~characterised in that~~ wherein 4-chloro-2-methoxyimino-3-oxo-butyryl chloride is used as the reactive derivative of formula III.

Claim 9. (Currently amended): A process as claimed in ~~any of claims 1 to 5 or 8~~, wherein prior to precipitation or crystallisation of the compound of formula I, any bromide or iodide ions that may be present are removed by ion exchange.

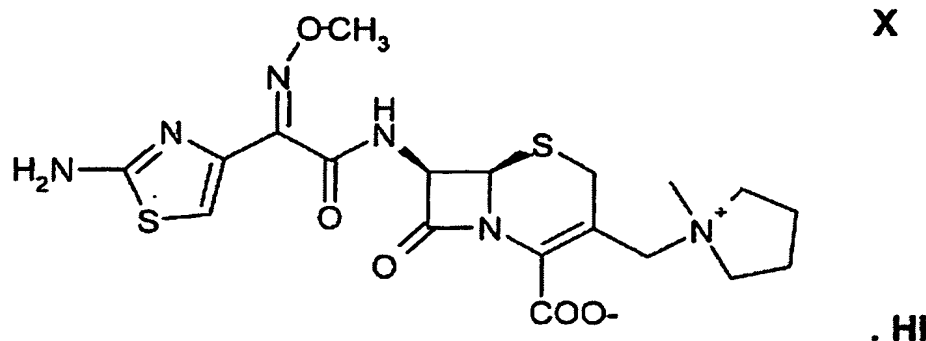
Claim 10. (Original): A process for producing the compound of formula I



characterised in that a compound of formula VIII



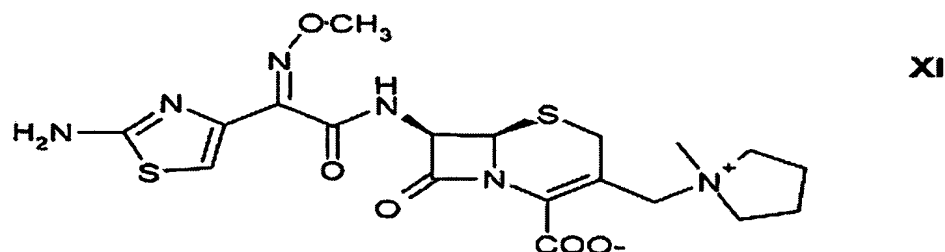
is desilylated in a protic solvent, and subsequently reacted with N-methylpyrrolidine to form a compound of formula X, and this is then converted into the compound of formula I



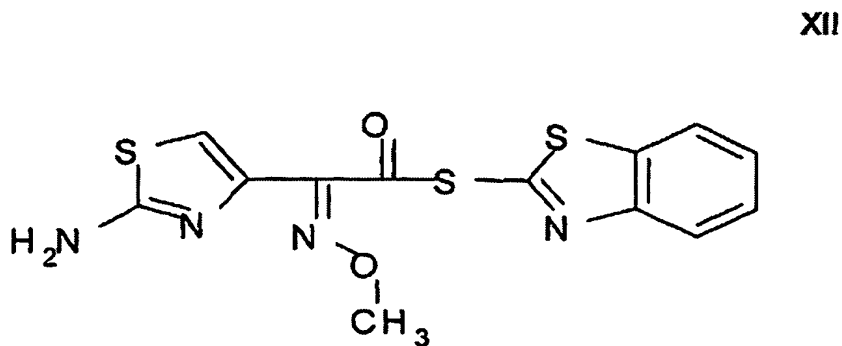
Claim 11. (Original): A process as claimed in claim 10, wherein the protic solvent is a C₁-C₄-alcohol.

Claim 12. (Currently amended): A process according to claim 10 ~~or 11~~, wherein conversion of the compound of formula VIII is effected using a basic ion exchanger.

Claim 13. (Currently amended): A process as claimed in claim 10, ~~11 or 12~~, wherein conversion of the compound of formula X into the compound of formula I is effected through the free betaine of formula XI in isolated form



Claim 14. (Currently amended): A process for producing the compound of formula I ~~characterised in that~~ wherein a compound of formula IIA, in unsolvated or solvated form, is reacted optionally after addition of a base, with a compound of formula XII



~~In~~ in acetone or aqueous acetone, and the compound of formula I precipitated in crystalline form from the reaction mixture by adding HCl.

Claim 15. (Original): A process as claimed in claim 14, wherein pyrrolidinium-1-[(7-amino-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-yl)methyl]-iodide monohydrate is used.

Claim 16. (Original): A process as claimed in claim 14, wherein pyrrolidinium-1-[(7-amino-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-yl)methyl]-chloride is used, optionally in solvated form.

Claim 17. (Original): A process as claimed in claim 14, wherein pyrrolidinium-1-[(7-amino-2-carboxy-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-en-yl)methyl]-dihydrochloride is used, optionally in solvated form.

Claim 18. (Currently amended): A process as claimed in ~~any one of claims 14 to 17~~, wherein the base is selected from the group consisting of a C₁-C₈-trialkylamine, KOH or NaOH, or and an alkali hydrogen carbonate or potassium carbonate, ~~is used as the base.~~